



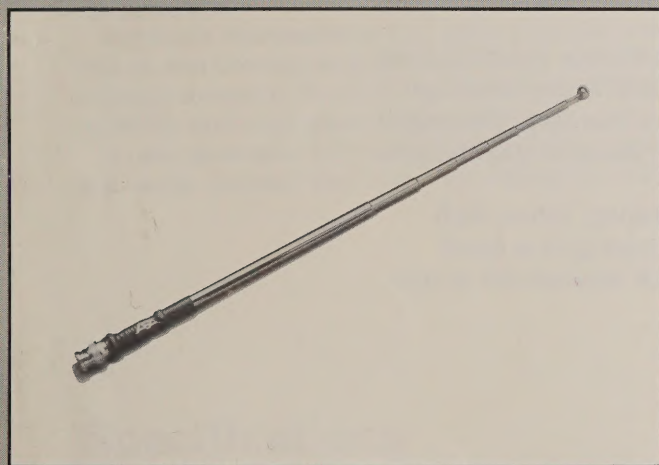
**FREE
ANTENNA**
SEE SPECIAL OFFER
ON BACK PAGE



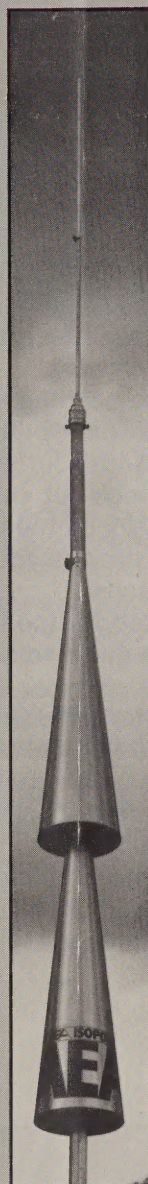
Pakratt Model PK-232



Pakratt Model PK-64



Hot Rod Antenna HR-1



Packet Model PK-87



ADVANCED ELECTRONIC APPLICATIONS, INC.

P.O. Box 2160
Lynnwood, Washington 98036 USA



From the desk of N7ML



Dear Fellow Amateurs,

1987 marks AEA's tenth anniversary in designing, manufacturing, and marketing Amateur Radio products. We at AEA are proud to have contributed to the many advancements Amateur Radio has made in the last ten years.

The next few years promise to bring many more exciting times to the active Amateur Radio Operator. We have even seen the bottom of the last sunspot cycle and are experiencing improving conditions on the HF bands.

If you have been inactive the last few years, check out all the fun you have been missing! Amateur Radio has been changed drastically by the computer revolution. RTTY, AMTOR, Morse, and Packet data modes will provide you with more fun than you can imagine and a learning experience you will treasure.

If you are a Novice class licensee, brace yourself for the Novice Enhancement program. Under the enhancements planned you will be given voice and data communication privileges.

AEA in ten short years has gained a reputation for providing simply sophisticated equipment that represents the best value for your dollar. Our designs are based on sound engineering practices that will assure you years of trouble-free use. You might find lower cost products, but I promise you will not find a better value in quality, product features, applications help, and speedy service.

Please take a few minutes to review the products in this catalog. While AEA markets several other products, we believe the ones in this brochure give a good representation of our product line. I think you will agree that AEA specializes in products that make Amateur Radio fun and exciting.

Sincerely,

C. Michael Lamb, President

P.S. Don't miss the back cover offer of a free Hot Rod antenna with the purchase of any Pakratt or Isopole.

All AEA Products carry a 90 day Warranty on parts and labor.
Specifications and Prices subject to change without notice or obliteration.

NEW!



PK-87™ Packet Controller



More than TNC-2 Compatible

AMATEUR NET PRICE

\$179⁹⁵

With the introduction of the TAPR TNC 2 in April 1985 the Tucson group set a new standard for Packet only controllers. Now AEA brings you another breakthrough with the PK-87. While many manufacturers continue to sell clones of the TNC 2, AEA has improved on the TNC 2 program with several new software features.

The Host mode of the new PK-87 can be utilized to improve terminal program operation. AEA has a recommended list of programs for IBM, Apple, Radio Shack, and other computers that include split screen display, type ahead buffer, data storage and most of the features requested by Packet operators.

Four new commands in the PK-87 allow you to restrict the use of your station for both connects and as a digipeater. The Mailbox monitoring command allows monitoring without displaying the callsign headers, while standard monitoring includes both MFROM and MTO lists.

Software commands are used to select the terminal baud rate, the Packet baud rate (45-9600), and modem tones 1070/1270, 2025/2225, 1200/2200. While the PK-87 can be used for HF operation, AEA recommends the optional PM-1 packet modem for low band use.

Hardware improvements also make the PK-87 stand above the rest. In addition to standard Data Carrier Detect, Push to talk, Status, and Connect indicators, the PK-87 has front panel LEDs for operational mode (Converse, Transparent, Command) and multiple connects. The PK-87 uses a Zilog 8530 SCC for hardware HDLC. The Modem disconnect of the PK-87 guarantees compatibility with high speed modems in the future.

A new generation of Packet terminal node controllers begin in 1987 with the new AEA PK-87. Join the Packet Radio revolution today. Contact your local AEA Authorized Dealer and order your new PK-87.

Specifications

Operating Mode

- AX.25V2L2 Packet (previous versions supported)
- Half/Full Duplex

Modem

- Input Sensitivity: 5 mVRMS
- Input Dynamic Range: 5 to 770 mVRMS
- Bypassable via Ext Modem connector for use with external modem
- Hardware Watch Dog Timer — 1 minute timeout
- Demodulator: AMD 7910 World Chip
- Modulator: Phase-continuous sinewave AFSK generator
- Modulator output level: 5-100 mVRMS, rear panel adjustable

Processor System

- Processor: Zilog Z80
- RAM: battery backed, 16K Bytes
- ROM: 32K Bytes
- Hardware HDLC: Zilog 8530 SCC

Rear Panel Input/Out-put Connections

- Radio Interface: 5 pin; Receive audio, Transmit audio, PTT, Auxiliary squelch, Ground
- External Modem: 5 pin; Transmit data, Receive data, carrier detect, Clock, Ground
- Terminal Interface: RS-232C 25 pin DB25 connector
- Terminal data rates: 300, 1200, 2400, 4800, 9600 (with autobaud select)

Front Panel Indicators

- Indicators: Operational Mode; Converse, Transparent, Command, Send, Data Carrier Detect, Status, Connect, Multiple Connect

Power Requirements

- +12 to +16 VDC @ 550ma, 2.1 mm power connector, center positive
- AC-1 120 VAC adapter supplied

Physical

- 9.4" x 5.74" x 1.8", 3 lbs.



PK-64™ Multimode Data Controller

AMATEUR NET PRICE

\$219⁹⁵

\$319.95 with High Frequency Modem

FIVE MODES with the Commodore 64

The AEA PK-64 turns the Commodore 64 and your transceiver into a complete five mode transmit/receive Amateur data station. Work Morse, Baudot, ASCII, AMTOR, and Packet with this single unit that plugs directly into a Commodore 64, SX-64, 64-C, or 128 computer. All the necessary software is on ROM in the unit, so you don't need a disk drive or any other peripheral. The software program includes features you don't find in most terminal programs used for Packet operation.



Split Screen Display — All modes use a divided screen display for transmit/receive/status.

Multiple Connect on Packet — Easy to use multichannel operation.

Full Disk, Cassette, Printer Compatibility — Supports Commodore peripherals for data handling.

Ten Message/Command Buffers — Preprogram your own messages for retransmission with a simple command.

20K Byte QSO Buffer — Stores incoming data for easy storage or retransmission.

Level 2 Version 2 packet — Latest version of Packet protocol, fully compatible with earlier versions.

Disk Parameter Storage — Up to ten different parameter groupings can be stored for easy retrieval.

Built-In Frequency Counter — Makes self calibration of modem easy without test equipment.

Connect Alarm Siren — Adjustable volume alarm sounds when a packet link is established. (Uses monitor audio)

HFM-64 Enhanced Modem

The standard modem does not give satisfactory performance with CW receive and will not operate FM RTTY with the standard tone pair. With the optional HF Modem you'll get superior sensitivity and selectivity performance for HF operation on all modes. The HFM option features filtering of Mark and Space tones with independent four pole Chebyshev filters, and A.M. detection. The PK-64 can be purchased with the HFM option installed, or the option can be field installed. No soldering is necessary, and the variable threshold and tuning indicator are included.

PK-64A Version

An enhanced version of the PK-64 is also available with a two foot long flexible computer cable replacing the standard nine inch ribbon cable connecting the PK-64 to the computer. The longer cable gives greater flexibility in placing the unit in the shack.

The PK-64A also includes the following software enhancements; QSO buffer enlarged to 36K, Transmit buffer doubled to 1026 characters, Multiple channel change without acknowledge, PTT indication on the display screen.

No other unit, AEA or competitors, gives you the flexibility and ease of operation with the Commodore 64, SX-64, 64C, or 128. If you own one of the Commodore computers the PK-64 is the best unit you can buy. Call your AEA Authorized dealer today. The PK-64A Amateur Net Price is \$269.95, or \$369.95 with the HFM option installed.



AMATEUR NET PRICE

\$319⁹⁵

PK-232™ Multimode Data Controller

FIVE MODES with any RS-232 Computer or Terminal

The PK-232 makes any RS-232 compatible computer or terminal the complete Amateur digital operating position. All decoding, signal processing, and protocol software, for Morse, Baudot, ASCII, AMTOR, and Packet is on ROM in the PK-232. Only a simple terminal program is required to interface the computer or terminal to the PK-232. The PK-232 is a Z-80A based system and has hardware HDLC (High Level Data Link Control) using the Zilog 8530 SCC. The internal modem of the PK-232 can transmit Packet at rates from 24 to 1200 baud, with the option of using an external modem for 2400, 4800, and 9600 baud.

The PK-232 also includes a no compromise VHF/HF/CW modem with an eight pole bandpass filter followed by a limiter discriminator with automatic threshold correction. Transmitter tones are low distortion sinewave phase continuous AFSK, Bell 202 Standard (1200-2200 Hz) for VHF, and 2110-2300 Hz (compatible with 170 Hz shift RTTY) for HF. Experienced HF Packeteers worldwide are reporting the PK-232 to have the best Packet modem available.

In addition to all the standard AEA program features for CW/RTTY/ASCII/AMTOR, like a large type ahead buffer (750 characters) and receive text buffer (2700 characters), automatic CW speed tracking, and all modes of AMTOR; you'll find lots of new features. The PK-232 software includes a computer host mode and the ability to transmit and receive raw HDLC. The new MBX (mailbox) parameter allows print/display of only the information portion of packets received from a Packet Bulletin Board in the monitor mode. Additional parameters (CFROM and CREJECT) give selectable connect privileges, and (DFROM and DREJECT) can restrict the station use as a digipeater.



Specifications

Modem

- Input Sensitivity: 5 mVRMS
- Input Dynamic Range: 5 mv to 500 mVRMS
- Bypassable via Ext Modem connector for use with external modem
- Hardware Watch Dog Timer — 1 minute timeout
- Onboard calibration software and hardware
- Demodulator: limiter-discriminator preceded by 8 pole bandpass filter
 - VHF Packet: 1700 Hz center frequency, 2600 Hz BW
 - HF (non CW): 2210 Hz center frequency, 450 Hz BW
 - CW: 800 Hz center frequency, 200 Hz BW
- Modulator: Phase continuous sinewave AFSK generator
- Modulator output level: 5-100 mVRMS, rear panel adjustable

Packet Protocol

- AX.25 V2L2 (previous versions supported)

Processor System

- Processor: Zilog Z80
- RAM: battery backed, 16KBytes
- ROM: 32KBytes, 48KBytes max
- Hardware HDLC: Zilog 8530 SCC

Rear Panel Input/Output Connections

- Radio Interfaces: Two 5 pin; front panel selectable (receive audio, transmit audio, PTT, Auxillary squelch, Ground)

- External Modem: 5 pin; Transmit data, Receive data, Carrier detect, Clock, Ground.
- FSK Outputs: normal and reverse
- Scope Outputs: Mark, Space
- CW Keying Outputs: +100VDC @ 100 ma max, or -30VDC @ 20 ma max
- Terminal Interface: RS-232-C 25 pin DB25 connector (pins 1-8 and 20 software and hardware handshake)
- Terminal data rates: 300, 1200, 2400, 4800, 9600 baud

Front Panel Controls and Indicators

- Controls: Power, Radio selector, Threshold adjust
- Indicators: Data Carrier Detect LED, 10 Segment HF Bargraph Tuning Indicator, Mode Indicators (Baudot, ASCII, PTT, Morse, Check, FEC, ARQ, Mode L, STBY), Status Indicators (STBY, Phase, Idle, ERROR/Conv, Over,

Power Requirements

- +12 to +16 VDC @ 700ma, 2.1 mm connector, center pin positive
- Reverse polarity protection (Internal lampfuse)
- Optional AC-4 VAC Adapter available

Physical

- 11" x 8.25" x 2.5", 3 lbs.



Improve VHF/UHF Performance with the **IsoPole™** Antennas

Outstanding mechanical and electronic design makes the IsoPole the only logical choice for a VHF base station, especially for Packet operation. All Isopole antennas yield the maximum gain attainable for their respective lengths and a maximum signal on the horizon. Exceptional decoupling from the feed line results in simple tuning and a significant reduction in TVI potential. The Isopole also significantly reduces the potential for computer RF hash pickup on the coax outside shield surface. The IsoPole antennas are all impedance matched in the factory so no field tuning is required.

The Isopoles have the broadest frequency coverage of any comparable VHF base station antenna. This means no loss of power output from one end of the band to the other, when used with SWR protected solid state transceivers. Typical SWR is 1.4 to 1 or better across the entire band. A standard 50 Ohm SO-239 connector is recessed within the base sleeve (fully weather protected). With the IsoPole you will not experience aggravating deviation in SWR with changes in weather. The impedance matching network is weather sealed and designed for maximum legal power. The aerodynamic cones are the only appreciable wind load and are attached directly to the support (a standard TV mast which is not supplied).

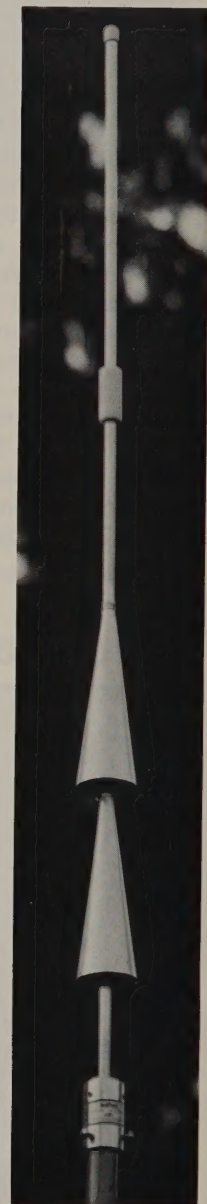
ISO 144
ISO 220

Specifications

MODEL	144	220	440
Freq. Coverage (Mhz)	135-160	210-230	415-465
Impedance	50 Ohm	50 Ohm	50 Ohm
2.1 VSWR bandwidth	>12Mhz @ 146Mhz	>15Mhz @ 220Mhz	>22Mhz @ 435Mhz
Power Rating	1 kw	1 kw	1 kw
Gain* (actual measurement)	3 dbd	3 dbd	3 dbd
Radiating Element Length	125.5" (3.2m)	79.25" (2m)	46" (1.2m)
Wind Area	< 1 sq. ft.	< .75 sq. ft.	< .20 sq. ft.
Maximum Mast OD	1 1/4" (32mm)	1 1/4" (32mm)	1 1/4" (32mm)
Minimum Mast Length**	8 ft. (2.4m)	5 1/2 ft. (1.6m)	6" (150mm)
Shipping Weight	5lbs.	4 lbs.	2.5 lbs.
Coax Connector	PL 259	PL 259	Type N
Amateur Net Price	\$49.95	\$49.95	\$69.95

*dbd — db gain over a dipole in free space

**mast not included



ISO 440



Authorized Dealers

AEA is represented by the finest amateur radio dealers in the U.S. These dealers offer the best prices on AEA products. As a rule we do not sell direct, please contact your favorite dealer.

ARIZONA

Ham Radio Outlet
Phoenix, 602/242-3515

Pace Engineering
Tucson, 602/888-3333

CALIFORNIA

Ham Radio Outlet
Anaheim, 800/854-6046
714/761-3033

Ham Radio Outlet
Burlingame, 415/342-5757

Ham Radio Outlet
Oakland, 415/534-5757

Ham Radio Outlet
San Diego, 619/560-4900

Ham Radio Outlet
Van Nuys, 818/988-2212

Henry Radio
Los Angeles, 800/421-6631
213/820-1234

Jun's Electronics
Culver City, 213/390-8003
800/882-1343

Quement Electronics
San Jose, 408/998-5900

COLORADO

C.W. Electronics
Denver, 303/832-1111

Colorado Radio Center
Denver, 303/288-7373
800/227-7373

DELAWARE

Delaware Amateur Supply
New Castle, 302/328-7728
800/441-7008

FLORIDA

Amateur Electronic Supply
Clearwater, 813/461-4267

Amateur Electronic Supply
Orlando, 305/894-3238
800/327-1917

Eli's Amateur Radio Inc.
Ft. Lauderdale, 305/525-0103

Mike's Elec. Dist. Co.
Ft. Lauderdale, 305/491-7110

Quad Elec
Pensacola, 904/438-3319

GEORGIA

Britt's 2 Way Radio
Smyrna, 404/432-8006

Doc's Communications
Rossville, 404/866-2302

Ham Radio Outlet
Atlanta, 404/263-0700

HAWAII

Honolulu Elec
Honolulu, 808/949-5564

IDAHO

Ross Distributing Co.
Preston, 208/852-0830

ILLINOIS

Erickson Communications
Chicago, 800/621-5802
312/631-5181

Floyd Electronics
Collinsville, 618/345-6448

INDIANA

Ham Station (The)
Evansville, 812/422-0231
800/523-7731

KANSAS

Amateur Radio Equipment Co.
Wichita, 316/264-9166

MASSACHUSETTS

Tel-Com Inc.
Littleton, 617/486-3400

MICHIGAN

Den-Tronics
Flushing, 313/659-1776

Michigan Radio
Mt. Clemens, 313/469-4656

MINNESOTA

TNT Radio
Robbinsdale, 612/535-5050

MISSOURI

Missouri Comm Systems, Inc.
Kansas City, 816/741-8118
800/821-7323

MISSISSIPPI

Hooper Electronic Supply
Biloxi, 601/432-0584

NEW HAMPSHIRE

Rivendell Association
Derry, 603/434-5371

NEW JERSEY

KJI Electronics
Cedar Grove, 201/239-4389

NEVADA

Amateur Electronic Supply
Las Vegas, 800/634-6227
702/647-3114

Reno Radio
Sparks, 702/331-7373
800/345-5686

NEW YORK

Barry Electronics
New York, 212/925-7000

VHF Communications
Jamestown, 716/664-6345

NORTH CAROLINA

Doc's Communication
Charlotte, 704/523-7003

Williams Radio Sales
Colfax, 919/993-5881
800/523-0347

OHIO

Amateur Electronic Supply
Wickliffe, 216/585-7388
800/321-3594

R & L Electronics
Hamilton, 513/868-6399

Universal Amateur Radio
Reynoldsburg, 614/866-4267

OREGON

Antronics of Oregon
Aloha, 503/642-7373

Portland Radio Supply Co.
Portland, 503/228-8647

PENNSYLVANIA

Ham Store (The)
State College, 814/238-3798

Hamtronics
Trevose, 215/357-1400

SOUTH DAKOTA

Burghardt Amateur Center
Watertown, 605/886-7314

TENNESSEE

Memphis Amateur Radio
Memphis, 800/238-6168
901/683-9125

TEXAS

Austin Amat. Radio Supply
Austin, 512/454-2994
800/423-2604

Electronic Center, Inc.
Dallas, 214/526-2023

Kennedy Associates
San Antonio, 512/333-6110

Madison Electronics
Houston, 800/231-3057
713/520-7300

Stephens Electronics
Corpus Christi, 512/991-6789

Texas Comm Center
Houston, 713/957-8011

Texas Towers
Plano, 214/422-7306
800/272-3467

VIRGINIA

Electronic Equipment Bank
Vienna, 703/938-3350
800/368-3270

WASHINGTON

ABC Communications
Seattle, 206/364-8300

Amateur Radio Supply
Seattle, 206/767-3222

C-Comm
Seattle, 800/426-6528
206/784-7337

Wanzer Company
Spokane, 509/928-3073

WISCONSIN

Amateur Electronic Supply
Milwaukee, 800/558-0411
414/442-4200

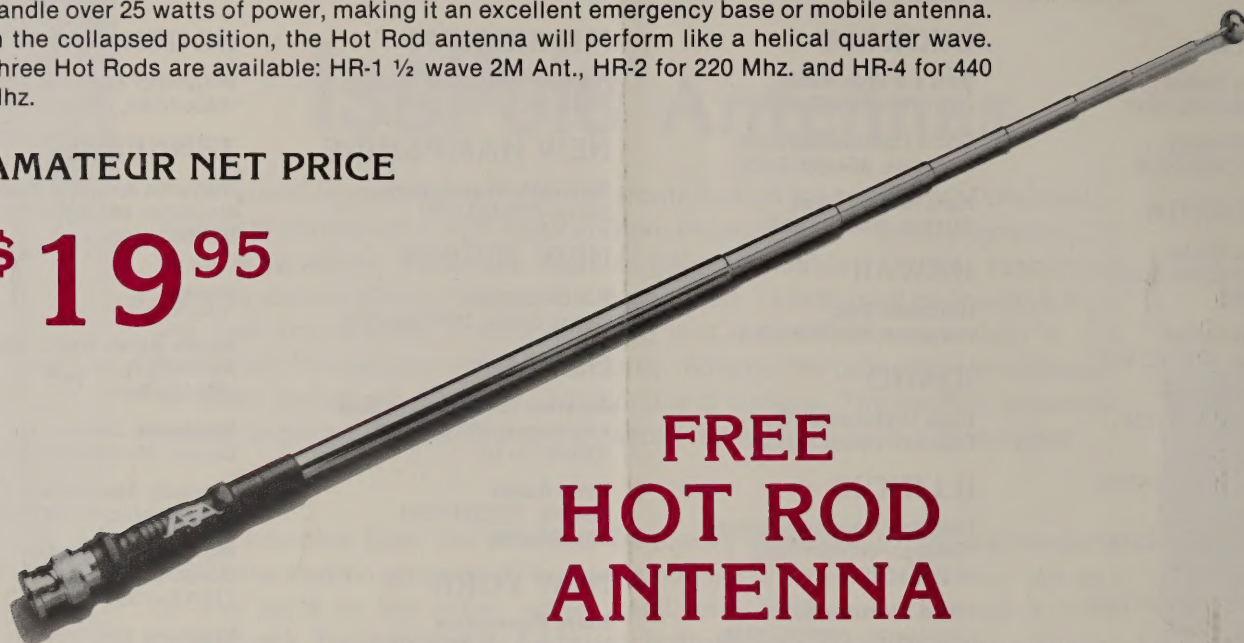
AEA HOT ROD™

High Performance Hand-Held Antenna

The Hot Rod antenna makes the same improvement to hand-held communications that the IsoPole antennas have made to base station operation. Achieve 1 or 2 db gain over ANY 5/8 wave two meter telescopic antenna. The factory tuned HR-1 is 20% shorter, lighter and places far less stress on your hand-held connector and case. It will easily handle over 25 watts of power, making it an excellent emergency base or mobile antenna. In the collapsed position, the Hot Rod antenna will perform like a helical quarter wave. Three Hot Rods are available: HR-1 1/2 wave 2M Ant., HR-2 for 220 Mhz. and HR-4 for 440 Mhz.

AMATEUR NET PRICE

\$ 19⁹⁵



FREE HOT ROD ANTENNA

Purchase any AEA product featured in this catalog (except the Hot Rod antenna) between 11/15/86 and 4/15/87 and receive one Hot Rod Antenna FREE. Fill in the coupon and attach it to the Warranty Card of the product purchased. Return the Warranty Card, Coupon, and a copy of the sales slip to AEA. Allow 6 to 8 weeks for delivery.

Please type or print. This is your mailing label.

Name _____ Call _____

Address _____

City _____ State _____ Zip _____



Advanced Electronic Applications, Inc.
P.O. Box C-2160 Lynnwood, WA 98036

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